ELSEVIER

Available online at www.sciencedirect.com

SCIENCE DIRECT®

Journal of Hydrology 298 (2004) 335

Journal of Hydrology

www.elsevier.com/locate/jhydrol

Contents of Volume 298

Vol. 298, Nos. 1–4 **October 1, 2004**

Special Issue: The Distributed Model Intercomparison Project (DMIP)

Preface
The distributed model intercomparison project (DMIP)
M. B. Smith, K. P. Georgakakos and X. Liang 1

Overview of the Distributed Model Inter Comparison Project

The distributed model intercomparison project (DMIP): motivation and experiment design
M. B. Smith, D.-J. Seo, V. I. Koren, S. M. Reed, Z. Zhang, Q. Duan, F. Moreda and S. Cong 4
Overall distributed model intercomparison project results
S. Reed, V. Koren, M. Smith, Z. Zhang, F. Moreda, D.-J. Seo and DMIP Participants 27

Specific Models and Issues

Continuous streamflow simulation with the HRCDHM distributed hydrologic model
T. M. Carpenter and K. P. Georgakakos 61
Preserving high-resolution surface and rainfall data in operational-scale basin hydrology: a fully-distributed physically-based approach
V. Y. Ivanov, E. R. Vivoni, R. L. Bras and D. Entekhabi 80
Calibration of a semi-distributed hydrologic model for streamflow estimation along a river system
N. K. Ajami, H. Gupta, T. Wagener and S. Sorooshian 112
Formulation of a hybrid calibration approach for a physically based distributed model with NEXRAD data input
M. Di Luzio and J. G. Arnold 136
Evaluation of a physics-based distributed hydrologic model for flood forecasting
B. E. Vieux, Z. Cui and A. Gaur 155
Application of TOPNET in the distributed model intercomparison project
C. Bandaragoda, D. G. Tarboton and R. Woods 178

Distributed Modeling and Uncertainty

Impacts of parametric and radar rainfall uncertainty on the ensemble streamflow simulations of a distributed hydrologic model
T. M. Carpenter and K. P. Georgakakos 202
Towards the characterization of streamflow simulation uncertainty through multimodel ensembles
K. P. Georgakakos, D.-J. Seo, H. Gupta, J. Schaake and M. B. Butts 222
An evaluation of the impact of model structure on hydrological modelling uncertainty for streamflow simulation
M. B. Butts, J. T. Payne, M. Kristensen and H. Madsen 242

Other DMIP Science Questions

Runoff response to spatial variability in precipitation: an analysis of observed data
M. B. Smith, V. I. Koren, Z. Zhang, S. M. Reed, J.-J. Pan and F. Moreda 267
Assessment of the effects of spatial resolutions on daily water flux simulations
X. Liang, J. Guo and L. R. Leung 287
Impacts of different precipitation data sources on water budgets
J. Guo, X. Liang and L. R. Leung 311

doi: 10.1016/S0022-1694(04)00353-1